Mathematical simulation of the low-temperature plazma at the interaction with oil products

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Abstract

© Published under licence by IOP Publishing Ltd. Self-consistent mathematical models of a non-equilibrium low-temperature plasma of a radio frequency capacitive discharge in argon in different pressure ranges have been created. These mathematical models allow us to calculate the internal structure and discharge parameters for controlling parameters of the plasma torches at solving the target problems in order to optimize their functioning. The methods for numerical realization of the proposed models are developed. The results of numerical calculations for test problems are analyzed.

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